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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Inventor M.J. Perez
5 Group Art Unit 2854
Examiner D.J. Collila
Attorney Docket No. 60004398-1
Confirmation No. 9766
Title: Method For Removing Roll-set Curl for Two-sided Printing

10 **RESPONSE TO FINAL OFFICE ACTION DATED MARCH 6, 2003**

#7
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REMARKS

25 Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-20 are pending in the application.

Claims 1-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Silverbrook et al., U.S. Patent No. 6,443,555 (hereinafter "Silverbrook") and Hatta, Japanese Patent Application No. 07-314832 A (hereinafter "Hatta"), alone or in combination with one or more of Yonekubo, 30 U.S. Patent Application No. US2001/0055041 A1; Clark, U.S. Patent No. 6,406,126 B1; Kaneko et al., Japanese Patent Application No. 04-345878 A; Winter et al, U.S. Patent No. 6,015,207; Shinohara et al., Japanese Patent Application No. 08-292505 A; Suga, Japanese Patent Application No. 05-155106 A; Ishida, Japanese Patent Application No. 09-286128; or Takayama et

al., U.S. Patent No. 6,222,570 B1. Applicant traverses and requests reconsideration.

Silverbrook discloses "A pagewidth inkjet printer including: a printhead assembly having an elongate pagewidth array of inkjet nozzles, chambers and thermal bend actuators formed using MEMS techniques; wherein the array extends at least 36 inches (914 mm) in length; and, the printhead assembly being constructed and arranged such that adequate heat dissipation occurs at equilibrium operating conditions without a forced heat exchange system." (Abstract). As such, Silverbrook is primarily concerned with design of the inkjet assembly for high speed printing. Silverbrook is completely silent with respect to paper curl or double sided printing. Accordingly, Silverbrook does not even recognize the problem to be solved and cannot provide motivation or suggestion as to potential solutions to the problems addressed by Applicant's disclosure.

Hatta discloses a journal printer (Title) in which the principal objective is to take up a roll paper on a take-up spool such that the outside face of the roll paper is in a white state by mounting a printer roll paper on the take-up spool with its printed face inside. (Abstract; Purpose).

In contrast, Applicant's claim 1 recites "A method of removing roll-set curl in a print medium rolled on a core utilizing a large format printer equipped with a take up reel ("TUR"), said method comprising the steps of: activating a TUR having a core; loading said rolled print medium into said large format printer; advancing said rolled print medium through said large format printer until a front edge of said rolled print medium is adjacent to said TUR; attaching said front edge of said rolled print medium to said core of said TUR, such that a surface to be printed upon of said rolled print medium faces said core of said TUR; and rotating said core of said TUR in a direction substantially opposite a

direction of said rolled print medium on said core to substantially wind said rolled print medium on to said core of said TUR", which is not taught, disclosed, suggested or motivated by the cited references.

5 Applicant's claim 10 recites "A method of printing on both sides of a
print medium rolled on a core utilizing a large format printer equipped with a
take up reel ("TUR"), said method comprising the steps of: activating a TUR
having a first core; loading said rolled print medium into said large format
printer; sending a plot stream to said large format printer; printing said plot
stream onto a first surface of said rolled print medium; advancing said rolled
10 print medium through said large format printer until a front edge of said rolled
print medium is adjacent to said TUR; attaching said front edge of said rolled
print medium to said first core of said TUR, such that a surface to be printed
upon of said rolled print medium faces said first core of said TUR; and rotating
said first core of said TUR in a direction substantially opposite a direction of
15 said print medium roll to substantially wind said rolled print medium on to said
first core of said TUR", which is not taught, disclosed, suggested or motivated
by the cited references.

20 Silverbrook and Hatta are both silent with respect to removing roll-set
curl, as recited in claim 1. Silverbrook is silent with respect to any aspect of
printing on both sides of a print medium, as recited in claim 10. Hatta indicates
that such is possible but provides no teaching whatsoever of doing so.

25 Both references are silent with respect to "advancing said rolled print
medium ... until a front edge of said rolled print medium is adjacent to said
TUR, as affirmatively recited in both claims 1 and 10. Both references are
similarly silent with respect to then "attaching said front edge of said rolled
print medium to said core of said TUR" and both references are also silent with
respect to doing so "such that a surface to be printed upon of said rolled print

medium faces said core of said TUR", as affirmatively recited in both claims 1 and 10. As such, the proposed combination does not and cannot provide the claimed subject matter.

5 The Office Action states (pp. 2, 3), with respect to Silverbrook, that "the leading edge of the paper ... must be inserted into the take-up spool in order for the printer to function." Silverbrook provides no such teaching.

10 Silverbrook teaches that the paper may be cut as it is printed (col. 7, line 59 et seq.) and that the paper is advanced by rollers 10 and 13 (col. 6, lines 46-53). Additionally, the view of Fig. 12 shows the end of the roll of paper as it advances but shows no take-up spool. As such, Silverbrook does not support the statement in the Office Action.

15 The Office Action further states (pp. 2, 3) that "Hatta discloses a printer in which a print head 1 is used to print on both sides of a printing medium 4 (see last sentence of machine translation). Figures 1 and 3 of Hatta show how a take-up spool can be arranged so that both sides are printed, thus both sides of medium 4 are to be printed upon and one of the sides to be printed on will always face the take-up core."

20 Hatta does not disclose printing on both sides of a printing medium with a print head 1. Hatta explicitly states that Fig. 1 shows the printed side of the paper on the inside of the take-up roll (par. 16, 19) and that the outside field is in the state of a blank paper." Hatta is utterly silent as to how the "outside field" might be printed and makes no allegation at all regarding printing such with the print head 1.

25 Hatta states (machine translation) that Fig. 3 depicts printing according to the prior art (par. 4 - par. 7) and that "the outside field is printing side 4b". Hatta teaches (par. 9) that the prior art as shown in Figure 3 has problems since "only one side of the field is used" the costs are high, "and that has the trouble

of also needing many storage space". Hatta does not teach printing both sides of the roll, as alleged, and further, combining the teachings of Hatta with the disadvantages of the prior art as taught by Hatta clearly comprises improper modification of the teachings of a reference, changes the principle of operation 5 of the reference and renders the teachings of the reference unsuited for its intended purpose. As such, the characterization of the teachings of Hatta provided in the Office Action is both improper, as a matter of law, and inaccurate.

As noted in the Response dated January 29, 2003, the primary reference, 10 Silverbrook, fails to disclose, teach, or suggest attaching a front edge of a rolled print medium to a core of a take up roll, such that a surface to be printed upon of the rolled print medium faces the core of the take up roll. In fact, Silverbrook is utterly silent with respect to how the printed roll is coupled to the take-up spool. Hatta is similarly silent with respect to attaching the front edge 15 of a rolled print medium to a core of a take up roll.

It is a main intent and intended purpose of Hatta to alter a printer in such a way as to cause a roll of printed matter to be wound on a take-up spool with a printed side facing the spool and with an unprinted side facing away from the spool.

20 In contrast to the intended purpose of Hatta, and as noted in the Response dated January 29, 2003, Silverbrook's Fig. 26 shows winding media to a take up spool such that an unprinted surface of the media faces the core of the take up spool and such that a surface to be printed upon faces opposite of the take up spool. Thus, not only does Silverbrook not meet all of Applicant's 25 claim recitations, Silverbrook shows the exact opposite of Applicant's claim recitations and shows what Hatta labels as the problem Hatta seeks to resolve.

Hatta teaches directly away from the disclosure of Silverbrook. Further, modifying the teachings of Hatta to attempt to arrive at the subject matter of Applicant's claims 1 or 10 renders the teachings of Hatta unsuitable for their intended purpose.

5 Applicant notes the requirements of MPEP §2143.01, in a subsection entitled "THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE". This subsection states that "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is
10 no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)" Because modification of Hatta to include the teachings of Silverbrook defeats the intended purpose taught by Hatta, it is improper to combine the teachings of these references in an attempt to find unpatentability.

15 Applicant notes the requirements of MPEP §2143.01, entitled "Suggestion or Motivation To Modify the References." This MPEP portion includes a subsection stating that "THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION". Inasmuch as both prior art references are silent with respect to the problem to be solved, it is
20 inconceivable that the references could suggest the desirability of the claimed invention.

Applicant further notes that, as there is no basis for the Examiner's contentions within the cited references, the only possible motivation for these contentions is hindsight reconstruction wherein the Examiner is utilizing
25 Applicant's own disclosure to construct a reason for combining the cited references using an improper "obvious to try" standard for unpatentability.

The Examiner is reminded that hindsight reconstruction is not an appropriate basis for a §103 rejection. (See, e.g., *Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990) (explaining that hindsight reconstruction is an improper basis 5 for rejection of a claim).)

The impermissibility of the rationale given in the Office Action is also discussed in MPEP §2145(X)(B), entitled "Obvious To Try Rationale ". This MPEP section states that "An applicant may argue the examiner is applying an improper "obvious to try" rationale in support of an obviousness rejection."

10 This MPEP section further states that "The admonition that 'obvious to try' is not the standard under § 103 has been directed mainly at two kinds of error. In some cases, what would have been 'obvious to try' would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of 15 which parameters were critical or no direction as to which of many possible choices is likely to be successful" The references cannot identify which parameters are critical if they do not recognize the problem to be solved, and they cannot provide direction as to which choices may succeed when they do not provide the elements recited in the claims.

20 This MPEP section also states that "In others, what was 'obvious to try' was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it." *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 25 1988)". Mere misrepresentation of the teachings of the references fails to elevate the arguments contained in the Office Action above such an "obvious to try" standard.

The Office Action fails to establish a prima facie case of obviousness. Applicant notes that criteria for such are set forth in MPEP §2143, entitled "Basic Requirements of a Prima Facie Case of Obviousness" (see also MPEP §706.02(j)).

5 This MPEP section states that "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." No motivation has been
10 identified in references by the Office Action to modify or combine the reference disclosures.

This MPEP section also states that "Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." As noted above, the
15 references fail to teach or suggest all of the recitations of the claims. As such, there can be no reasonable expectation of success.

This MPEP section further states that "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947
20 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." As a result, the rejection fails all prongs of the test set forth in the MPEP for a prima facie finding of unpatentability.

With respect to Yonekubo (U.S. Patent Application No. US2001/0055041 A1), Clark (U.S. Patent No. 6,406,126 B1), Kaneko et
25 al.(Japanese Patent Application No. 04-345878 A), Winter et al. (U.S. Patent No. 6,015,207), Shinohara et al. (Japanese Patent Application No. 08-292505 A), Suga (Japanese Patent Application No. 05-155106 A), Ishida (Japanese

Patent Application No. 09-286128), and Takayama et al. (U.S. Patent No. 6,222,570 B1), Applicant respectfully submits that none of these references cures the deficiencies of Silverbrook and Hatta as discussed above, and thus that claims 1-20 should be allowed over Silverbrook and Hatta in view of these 5 references.

Accordingly, (i) the references fail to provide the elements recited in Applicant's claims, (ii) the references have been mischaracterized in the Office Action, and have been improperly applied, (iii) the rejection fails to meet the standards set forth for finding unpatentability, (iv) the references teach away 10 from one another, (v) the teachings of Hatta are rendered unsuitable for their intended purpose if modified as suggested in the Office Action or if combined with the teachings of Silverbrook and (vi) the rejection employs an improper "obvious to try" rationale. Accordingly, the rejection of claims 1 and 10 and claims dependent therefrom is improper and should be withdrawn, and claims 15 1-20 should be allowed.

Conclusion

Claims 1-20 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any 20 matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

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Date: May 6, 2003

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